Ham-Homebrew Digest   Sun, 27 Feb 94   Volume 94 : Issue   44

Today's Topics:
              Challenge: Cheapest (least expensive) homeb
                        Fcc Refulations.
                   Voltage Regulator questions
             What test equipment do you use? (2 msgs)

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

I am not ready to get into this contest myself, but only because I
am trying to move the project to 220 instead of 2 meters. Now that
the FCC has opened the entire 220 band to the Novice class license
I think it is the perfect opportunity to get my sons interested in
working toward their first license.

Motorola makes a few chips with an entire low power dual conversion
FM receiver on a chip (the MC3363 or the MC13135 or the MC3362 etc.)
and another chip the MC2833 a low power FM Transmitter system. Each
of these require a few external parts, but only a minimal few. Order
data sheets MC2833/D, MC3363/D, MC13135/D, and Winter 1992 Communications
Quarterly reprint article. Also Application note AN980/D contains
instructions, board layout etc., for a 256 Channel Frequency Synthesized

Two Meter Amateur Band Receiver. The other documentes describe other
circuits/projects.

I got the boards and set of chips free.

I dunno, maybe I should try it first on 2 m just to make sure I can do it.

In article 6jg@u.cc.utah.edu, val@cs.weber.edu (Val Kartchner) writes:
> Here is a challenge for those in homebrew-land:
>
>   What is the lowest cost voice amateur transceiver that can be homebrewed?
>
> Other parameters to consider are:
>
>   - It should be from parts that are easy to get (Junk box, Radio Shack,
>   etc.), or are easy to build (air-core coils, etc.).
>
>   - It only needs to get a clear signal about 5 miles (in a residential
>   zone - lots of low-level obstacles), but 10 miles would be better.
>
>   - It may transvert the signal to a very low power transmission (for
>   reception in the same room) in the AM or FM broadcast bands (if this
>   is legal) for signal decode/output. (The separate AM/FM radio
>   should be listed but not included in the cost estimate.)
>
>   - It may be crystal tuned to one or few frequencies.
>
>   - If it cannot run off of a personal computer power supply, then include
>   the power supply price as well. (If it cannot run off of +12V @ 2A,
>   then it is probably overpowered for this application anyway.)
>
>   - Cost of a simple antenna should be included. (Coat hangers can
>   be considered as being free.)
>
>   - It should be as small as possible, but need not be a handheld.
>
> 73 -- KB7VBF
> --
> |================ #include <stddisclaimer.h> ================///============|
> | "AMIGA: The computer for the creative mind" (tm) Commodore /// Weber State |
> | "Macintosh: The computer for the rest of us"(tm) Apple \\\///   University |
> |== "I think, therefore I AMiga" -- val@csulx.weber.edu ==\///= Ogden UT USA =|

Sourdough and Ham AA0PV

```
--David C. Adams        internet:  dadams@cray.com
  Statistician          uunet:     uunet!cray!dadams
  Cray Research Inc.    packet:    kg0io@tcman.#msp.mn.usa.noam


    "The significant problems we face cannot be solved
    at the same level of thinking we were at when we
    created them."  -- Albert Einstein.
```

Date: 26 Feb 1994 05:07:14 GMT
From: hmwaljee@athena.mit.edu
Subject: Fcc Refulations.
To: ham-homebrew@ucsd.edu

Hello. I am not sure if this is 100% relevant for this channel, but I figure
that the people that would know anything about the area of my question are
subscribed to this channel.

I am a student here at MIT that is implementing a project to "track" the MIT
shuttles, so that students logged into the network will be able to find out where
it is and when to wait. In order to do this, I was probably going to use a
numerical code, transmitted using touch-tone (DTMF) encoders and decoders,

In order to do this, however, I would have to use a frequency on which to
transmit. Thus, this project then finds itself at the hands of the FCC. I was
wondering if anyone out there knows about the regulations concerning broadcasting
"beeps" over the range of a few square miles in a major city. This will probably
be a signal in the range of 10^1 kW. Which regulations apply? How do I find
out about them? What radio bands would/could I use? Any
idea as to the efficiency of such transmission?

    Anyway, thanks for listening, and I hope someone out there has both the
answers and the time to write back.

    Replies to: hmwaljee@mit.edu

Thanks again,
Hussein

Date: Fri, 25 Feb 1994 23:42:15 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!ihnp4.ucsd.edu!sdd.hp.com!
col.hp.com!news.dtc.hp.com!hplextra!hpcss01!markb@network.ucsd.edu
Subject: Voltage Regulator questions
To: ham-homebrew@ucsd.edu

National Semiconductor
LM196K or LM396K
10 AMP
1.25 to 15V adjustable

LM138K or LM338K is 5 Amp version

these are not cheap but work well (use a big heat sink)

Date: Fri, 25 Feb 1994 23:56:19 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!ihnp4.ucsd.edu!sdd.hp.com!
col.hp.com!news.dtc.hp.com!hplextra!hpcss01!markb@network.ucsd.edu
Subject: What test equipment do you use?
To: ham-homebrew@ucsd.edu

I must have forgotten some...

I like the test equipment more than the projects. Anyother
test equipement junkies out there?

Date: Fri, 25 Feb 1994 23:55:20 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!ihnp4.ucsd.edu!sdd.hp.com!
col.hp.com!news.dtc.hp.com!hplextra!hpcss01!markb@network.ucsd.edu
Subject: What test equipment do you use?
To: ham-homebrew@ucsd.edu

Scopes:
tek 535 545
hp 180
philips

generators:
hp200
hp215?
military URM26 URM26

sweepers
1-4
4-8
8-12 GHz
hp

Hickok tube tester

LCR meter - 2

spectrum analyzer
AIL757 (to 22ghz)

counter
hp5345l
hp???? (solid state)

DVM
5.5 digit and down

7 digit voltage calibrator

pulse generator
hp211
EH

scalar
hp8755

power meter
hp
wavetek 8542 (I designed this one)

power supplies
hp
home built

End of Ham-Homebrew Digest V94 #44
****